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ABSTRACT

As the third part of the 1991 secondary-schools student survey of the Toronto (Ontario, Canada), this report focuses on students' program-enrollment patterns and their school achievement. In the first section, students' demographic and school-related characteristics at advanced, general, and basic program levels are contrasted and compared with those documented in the 1987 report. The second section examines school performance, linking academic achievement with the same set of sociodemographic and school-related variables. Overall program trends are similar to those of 1987. The proportion of Asian students in the advanced levels has dropped slightly and proportions of black and white students have risen somewhat. The enrollment of male students in the general program is disproportionately high. At the advanced level, there is a high proportion of students from high socioeconomic status (SES) backgrounds, while at the general and basic levels there is a high representation of students from low-SES families. Student time use and postsecondary education plans are detailed. Six tables and 35 figures present survey findings. (Contains 4 references.) (SLD)

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PROGRAM LEVEL & STUDENT ACHIEVEMENT

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The 1991 Every Secondary Student Survey, Part III:

PROGRAM LEVEL & STUDENT ACHIEVEMENT

Fall 1993

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&

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EXECUTIVE SUMMARY

Program Level

- The overall program enrolment trends are similar to those of 1987, although there has been a slight increase in the enrolment of Advanced level courses (from 72% to 74%), and a decrease in the Basic level courses (from 7% to 5%). There has been a decline in the proportion of Asian students enroled in Advanced Level courses (from 85% to 80%), while the proportion of Whites and Blacks has risen slightly.

- In the non-university tracks, especially the General Level program, the enrolment of male students is disproportionately high.

- The representation of Black and Aboriginal students in General and Basic Level courses is more than double their presence in Advanced Level courses. Conversely, the proportion of Asian students in the university stream is higher than their proportion in the non-university streams.

- Students who live with two parents are more likely than students with other living arrangements to enrol in Advanced Level courses. Students living with one or no parent are mostly found in Basic or General program.

- At the Advanced Level, there is a high proportion of students from high socio-economic backgrounds, whereas at the General and Basic Levels there is a high representation of students from low socio-economic families .

- Students studying in Advanced Level courses tend to be more involved in extra-curricular activities than their peers in General and Basic Level courses.

- Students in Advanced courses are inclined to spend more hours doing homework and less hours working part-time than students from the other two types of programs.

- A significant number of students at the General and Basic Levels do not appear to recognize the linkage between program levels and post-secondary school options.

- Students in General and Basic Level programs are more likely to be uncertain about their post-secondary school plans than Advanced Level students.

Academic Achievement

- As a whole, Toronto's secondary school students are evenly distributed among four achievement levels:

    1. high achievement in both English and math;
    2. high achievement in either English or math;
    3. average achievement in both English and math;
    4. at risk of dropping out of secondary school.

- A breakdown by program level, however, indicates that while the majority (57%) of Advanced Level students are at the two high achievement levels, about half of the General and Basic Level students are at risk.

- Aside from program level, students' achievement also seems to be strongly related to such factors as racial background, parents' socio-economic status (both in terms of education and occupations), post-secondary school plans, and time spent on homework.

- A comparison with the 1987 data shows that the overall achievement patterns and the gaps among different subgroups have persisted over time. But there are two noteworthy changes. The first has to do with the increased percentage of high achievers among Black students - an increase which has narrowed their achievement gap slightly with White and Asian students. However, the performance of students from low socio-economic (SES) families (parents who are unskilled labourers or non-remunerative) has deteriorated, which means that their achievement gap with students from higher SES backgrounds has widened over the last few years.

SOME OVERALL FACTS & FIGURES

Toronto Secondary School Students, 1991-92

SOCIO-DEMOGRAPHIC CHARACTERISTICS			Percent (%)	Population Estimate*
OVERALL POPULATION			100%	27,000
Gender	Male		53	14,200
	Female		47	12,600
Race	White		54	14,500
	Asian		30	8,000
	Black		9	2,000
	Aboriginal		1	300
	Other		6	1,600
Language/Culture	White	English only	21.6	5,800
		Portuguese	9.4	2,500
		Jewish	4.9	1,300
		Greek	4.4	1,200
		Italian	3.1	800
		Polish	1.6	400
	Asian	Chinese	11.5	3,100
		from Indochina**	10.4	2,800
		Tamil	1.9	500
		Indian	1.8	500
		Korean	1.6	400
	Black	Canadian-born	3.4	900
		Caribbean-born	3.1	800
		African-born	2.4	600
	Aboriginal	Canadian-born	0.7	200
	Other	Hispanic	3.3	900
		Iranian	1	300
Place of Birth	Canada		57	15,300
	Outside Canada		43	11,600
Year of Arrival (foreign- born only)	Before 1987		43	11,600
	Since 1987		57	15,300
Parental Presence at Home	Both Parents		63	16,900
	Mother only		18	4,800
	Father only		3	800
	Not with parents		16	4,300
Parents' Occupation	Professional		24	6,500
	Semi-Professional/Technical		25	6,700
	Skilled/Semi-skilled		32	8,600
	Unskilled		6	1,600
	Non-remunerative		13	3,500
Level of Study	Basic		5	1,300
	General		21	5,600
	Advanced		74	19,900
	Non-streamed		0.7	200

*The population estimates are based on 26,872 on-line student registration records as of November 1991, and rounded to the nearest hundredth. The figures do not include students from the four adult schools in the Toronto Board.

**This category includes Vietnamese, Chinese-Vietnamese, Cambodians and Laotians.

Contents

EXECUTIVE SUMMARY i
SOME OVERALL FACTS & FIGURES iii

INTRODUCTION 1
1 PROGRAM LEVEL 2
Gender 2
Place of Birth 3
Race 4
Family Backgrounds 5
School Climate 8
Time Spent After School 8
Future Plans 10
SUMMARY 13
Comparisons to 1987 Data 14
2 STUDENTS' ACADEMIC ACHIEVEMENT 16
2.1 Overall Achievement 16
Credit accumulation 16
School marks 17
A combined indicator - credit accumulation and school marks . . 18
2.2 Achievement and School-related Factors 19
Program level 19
School climate 19
Time spent after school 20
Future plans 22
2.3 Achievement and Socio-demographic Characteristics 23
Gender 23
Race 24
Place of birth 27
First language(s) 28
Family background 29
A summary of factors related to achievement 34
2.4 Comparisons to 1987 Data 35
REFERENCES 39
APPENDIX 1. Toronto secondary school student survey forms, November 1991 (Forms A & B) 40

Figures

Figure 1: Gender by program level 2
Figure 2: Place of birth by program level 3
Figure 3: Year of arrival by program level 3
Figure 4: Race by program level 4
Figure 5: Parental presence by program level 5
Figure 6: Parental occupation by program level 6
Figure 7: Parental education by program level 7
Figure 8: Extra-curricular activities by program level 8
Figure 9: Homework and part-time work by program level 9
Figure 10: Post-secondary plans by program level 10
Figure 11: Parental expectation by program level 11
Figure 12: Students' career plans by program level 12
Figure 13: Mark distribution - English and math 17
Figure 14: Overall students' achievement 18
Figure 15: Achievement by program level 19
Figure 16: Homework and achievement 20
Figure 17: Homework, socio-economic background, and high achievement . 20
Figure 18: Part-time work and achievement 21
Figure 19: Extra-curricular activities and achievement 21
Figure 20: Students' post-secondary school plan and achievement 22
Figure 21: Overall achievement by gender 23
Figure 22: High math achievement by gender (Advanced Level) 24
Figure 23: Achievement by race 24
Figure 24: Achievement by program level and race 25
Figure 25: Achievement by birthplace 27
Figure 26: Achievement by birthplace and race - Advanced Level 27
Figure 27: Achievement by first language(s) 28
Figure 28: Achievement by first language(s) and race 29
Figure 29: Achievement by parents' education 29
Figure 30: Achievement by parents' education and race 30
Figure 31: Achievement by parents' occupation 31
Figure 32: Achievement by parents' occupation and race 32
Figure 33: Achievement by parental presence at home 32

Figure 34: Achievement by parental presence at home, among professionals .33
Figure 35: Achievement by parental presence at home and race 33

Tables

Table 1: Program level by socio-economic characteristics, 1987 vs 1991 ...14
Table 2: Proportion of at-risk students 16
Table 3: Achievement by gender - program level and race 23
Table 4: Achievement by cultural/language groups 26
Table 5: Proportion of students with high marks in English and math, 1987-88 and 1991-92 35
Table 6: High achievers, 1987-88 vs 1991-92 (Advanced Level) 36

INTRODUCTION

This is Part III of the 1991 secondary student survey report. Part I, The 1991 Every Secondary Student Survey: Initial Findings (Brown, Cheng, Yau, & Ziegler, 1992), is a snapshot of Toronto's secondary school student population both in terms of their socio-demographic backgrounds (e.g. gender, race, first languages, birthplace, and family circumstances) and their school-related characteristics (e.g. level of study, school perception, homework, part-time work, extra-curricular activities, and post-secondary plans and aspirations). Part II, Detailed Profiles of Toronto's Secondary School Students (Cheng, Yau, & Ziegler, 1993), takes an in-depth look into subgroup characteristics and differences based on three socio-demographic classifications: gender, race and ethnicity, and family background. Within each classification, the various demographic and school-related variables that have been broadly discussed in the initial report are analyzed in greater detail.

With Parts I and II as the backdrop, this report focuses on (1) students' program enrolment patterns, and (2) their school achievement.[1] In the first section, students' demographics and school-related characteristics at each of the three major program levels - Advanced, General and Basic - will be highlighted and contrasted. In addition, the program enrolment patterns and student profiles that emerged from this study will be compared with those documented in the 1987 survey report, The Every Secondary Student Survey: Fall 1987 (Cheng, Tsuji, Yau, & Ziegler, 1989).

The second section of the report will examine student school performance. While student performance can be evaluated with different measures - e.g. dropout and retention rates, Benchmarks, or provincial math review results, this study concentrates on academic attainment based on school marks and credit accumulation records, maintained by Toronto Board's Computer Information Services. The achievement data will be linked with the same set of socio-demographic and school-related variables mentioned above. The purpose is to understand *if* and *how* students' school performance is related to such background factors as gender and racial makeup, family situations, school perception, homework, and aspirations. Finally, comparisons with the parallel outcome results in 1987 will be documented to see whether any significant change in achievement has occurred among Toronto's secondary school students over the last few years.

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1. As in Parts I and II, this study is based on data from all Toronto's secondary schools, except for the four adult schools: City Adult Learning Centre, Adult Basic Education Centre, the Bickford Centre, and Jones Avenue Adult New Canadian Centre.

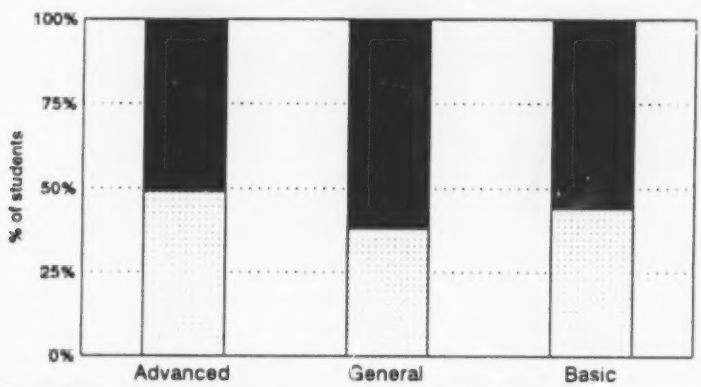
1 PROGRAM LEVEL

As described in the first report, The 1991 Every Secondary Student Survey: Initial Findings (Brown, Cheng, Yau & Ziegler, 1992), about three-quarters (74%) of Toronto's secondary students take most of their courses at the Advanced Level. About one-fifth (21%) enrol in General Level courses, and 5% in Basic Level courses. This section will describe how specific student characteristics are associated with each program level.

Gender

At the Advanced Level, the proportions of males (51%) and females (49%) are almost equal. At the General Level, however, the percentage of males rises to almost two-thirds (62%). The predominance of males over females (56% versus 44%) is also apparent at the Basic Level, but not as pronounced as in the General Level. (See Figure 1.)

Figure 1: Gender by program level

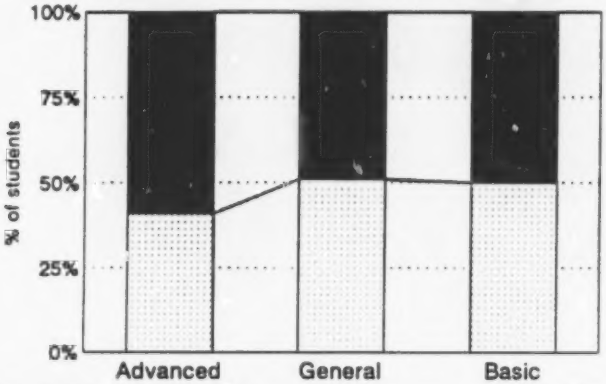


	Advanced	General	Basic
Male ■	51%	62%	56%
Female □	49%	38%	44%

Place of Birth

While Canadian-born students constitute about 60% of the enrolment in Advanced Level course, they make up only half of the enrolment in General and Basic Level courses. This actually means a slight overpresentation of foreign-born students in General and Basic Level courses, considering the fact that they comprise only 43% of the overall student population. (See Figure 2).

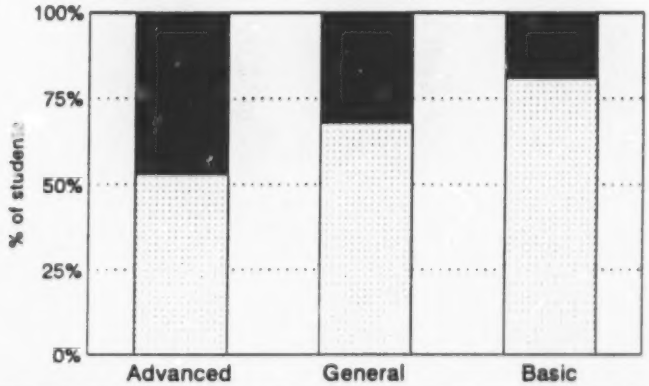
Figure 2: Place of birth by program level



	Advanced	General	Basic
Canadian-born ■	59%	49%	50%
Foreign-born □	41%	51%	50%

Among foreign-born students studying at the Advanced Level, about half (53%) are recent arrivals who came to Canada since 1987. (See Figure 3). This percentage increases to over two-thirds (68%) at the General Level and nearly three-quarters (72%) at the Basic Level. It appears that the recent arrivals are more likely to be in Basic and General than Advanced Level programs.

Figure 3: Year of arrival by program level

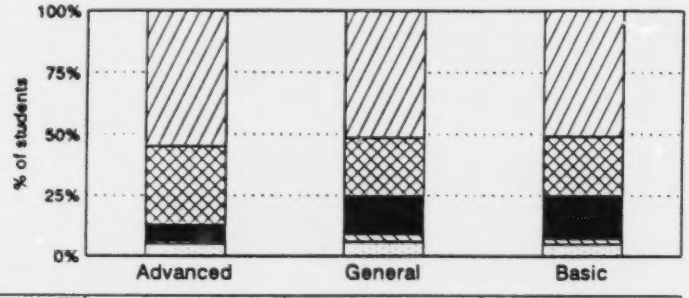


	Advanced	General	Basic
Before 1987 ■	47%	32%	17%
Since 1987 □	53%	68%	72%

Race

Figure 4 shows that while the distributions of White students are relatively equal across all three program levels, it is not the case with Asians, Blacks and Aboriginals. The representation of Asian students drops from about one-third in Advanced Level courses to about a quarter in the other two levels. The presence of Black students in Advanced courses (7%) becomes more than double in the General and Basic Levels (16%-18%). A similar finding is observed among the Aboriginal students.

Figure 4: Race by program level



	Advanced	General	Basic
White	55%	52%	51%
Asian	32%	24%	24%
Black	7%	16%	18%
Aboriginal	1%	3%	2%
Other	5%	6%	5%

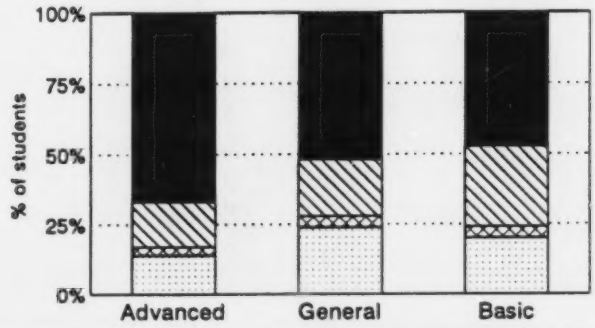
Family Backgrounds

Parental Presence

Among students studying in Advanced Level courses, two-thirds (67%) come from two-parent homes. This percentage drops to about half (52%) at General Level and less than half (47%) at Basic Level.

Conversely, while only 16% of students at the Advanced Level come from mother-only households, the percentage goes up progressively from 20% at the General Level to 28% at the Basic Level.

Figure 5: Parental presence by program level



	Advanced	General	Basic
Both Parents	67%	52%	47%
Mother Only	16%	20%	28%
Father Only	3%	4%	4%
Not with Parents	14%	24%	20%

Parents' Occupation

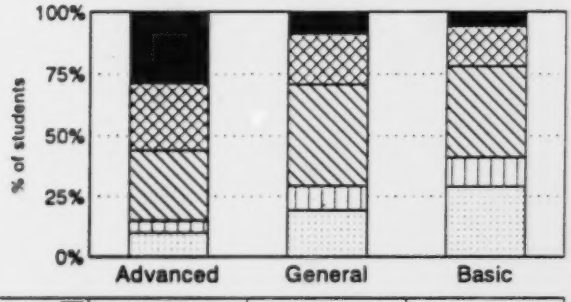
The profile of parental occupations for students in the Advanced Level program differs considerably from those in the General and Basic Levels.

At the Advanced Level, slightly over a quarter of students reported their parents' occupations in each of these three categories: professionals (29%), semi-professionals (27%), and skilled (29%). The other two occupational categories: unskilled (5%) and non-remunerative (10%) account for only a small proportion of the students in Advanced Level.

Within the General Level, skilled/semi-skilled (41%) makes up the single largest category of parents' occupations, with professional and semi-professional combined on the one hand, and unskilled, non-renumerative on the other, each makes up 29% of the students.

In Basic Level program, skilled/semi-skilled (37%) and non-remunerative (29%) constitute the two largest categories of parents' occupations, while professional (6%) makes up the smallest category.

Figure 6: Parental occupation by program level



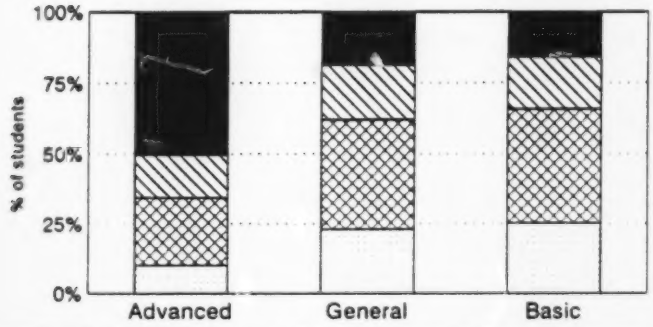
	Advanced	General	Basic
Professional	29%	9%	6%
Semi-professional	27%	20%	16%
Skilled	29%	41%	37%
Unskilled	5%	10%	12%
Non-remunerative	10%	19%	29%

Parents' Education

Like parents' occupation, the profile of parents' education in the Advanced Level program also differs significantly from those in General and Basic Level programs.

At the Advanced Level, exactly half of the students indicated university as their parents' highest level of education. At the General and Basic Levels, under one-fifth of the students have university educated parents. In fact, at these program levels, the most frequent level of education attained by parents is secondary school (39%, 40%), and about a quarter of the students reported elementary school as their parents' highest level of education, as compared to 10% of students studying at the Advanced Level.

Figure 7: Parental education by program level



	Advanced	General	Basic
University	50%	19%	16%
College	15%	19%	18%
Secondary	24%	39%	40%
Elementary	10%	23%	25%

School Climate

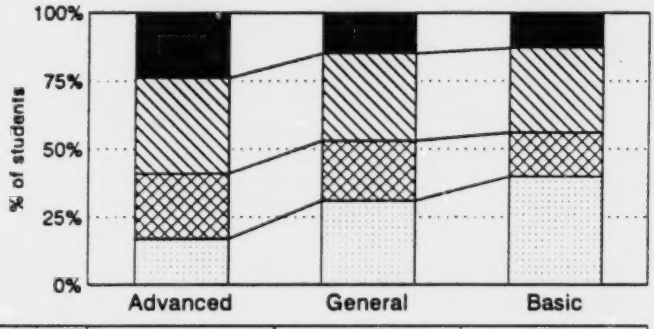
Based on students' responses to the seven items about school climate[2], their attitudes toward school do not seem to differ substantially from program level to program level.

Time Spent After School

Extra-curricular Activities

It is quite apparent from Figure 8 that students in Advanced Level courses are more involved in extra-curricular activities than the other two groups. While 24% of the students at Advanced Level <u>often</u> take part in such activities, only 15%-13% in General and Basic Level do so. Indeed, those enroled in Basic Level studies are least active. Forty percent <u>never</u> participate compared to 31% at General Level and 17% at Advanced Level.

Figure 8: Extra-curricular activities by program level



	Advanced	General	Basic
Often	24%	15%	13%
Sometimes	35%	32%	31%
Rarely	24%	22%	16%
Never	17%	31%	40%

2. For the seven items, see Survey Form A in Appendix 1, p.41.

Homework and Part-time Work

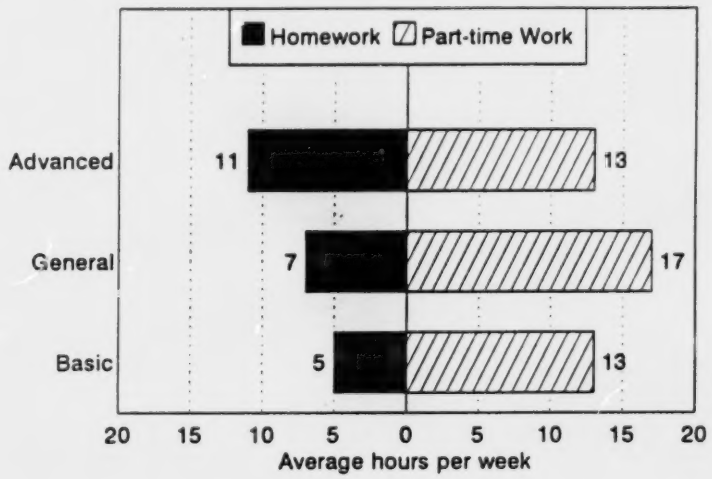
Students from the three program levels show different patterns in time spent on their homework and part-time work.

Homework

Almost all secondary students (96%) reported they do homework. Among those who do, the time spent on homework varies by program level. The time spent decreases from 11 hours per week for students at Advanced Level to 5 hours for students at Basic Level. The average for students at General Level is 7 hours. (See Figure 9).

Only 2% of those in Advanced Level courses and 8% in General Level courses reported that they do not do homework, while a quarter (25%) of the students in Basic Level program indicated this.

Figure 9: Homework and part-time work by program level



Part-time Work

Sixty percent of the Toronto secondary students do not work. However, students enroled in Basic Level program have the highest percentage not working (72%) compared to their peers studying in General (61%) and Advanced courses (58%).

Among students who do work part-time, those taking General Level courses have the longest average work hours per week (17). Their counterparts in Advanced and Basic Level courses both reported an average of 13 hours per week. (See Figure 9).

Future Plans

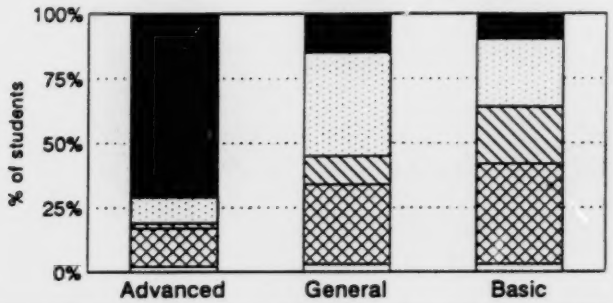
Post-Secondary School Plans

As illustrated in Figure 10, the post-secondary plans of students vary distinctly from one program level to another. As expected, the majority (71%) of students at Advanced Level plan to attend university. The proportion of students who plan to go to community college is highest among those enroled in General Level program (40%). On the other hand, those who expect to work full-time is highest among students in Basic Level courses (22%).

Surprisingly, a significant number of students do not seem to understand the link between secondary program level and post-secondary options. This includes the 15% of students taking General Level courses who aspire to university and the 36% of students taking Basic Level courses who aspire to college and university.

It is also worth noting that about 30% to 40% of students from General and Basic Levels are not sure about their post-secondary school plan compared to 15% of those in Advanced program.

Figure 10: Post-secondary plans by program level

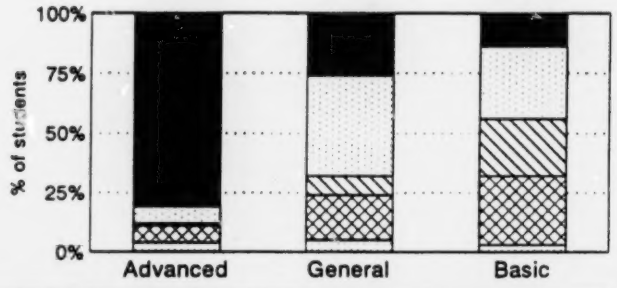


	Advanced	General	Basic
University	71%	15%	10%
College	10%	40%	26%
Work Full-time	2%	11%	22%
Not Sure	15%	31%	39%
Other	2%	3%	3%

Figures 10 and 11 show that at all program levels, students' estimates of their parents' expectations about post-secondary plans are similar to their own, but higher. This is observed consistently across the levels and is particularly notable among students in General Level courses, 26% of whom say that their parents expect them to go to university, to which the General Level program does *not* lead.

Another difference is that students tend to report their parents as *less* unsure about the future than the students themselves. For example, at the Basic Level, the percentages of "not sure" for parents and students are 29% and 39% respectively. This pattern is consistent across all program levels.

Figure 11: Parental expectation by program level

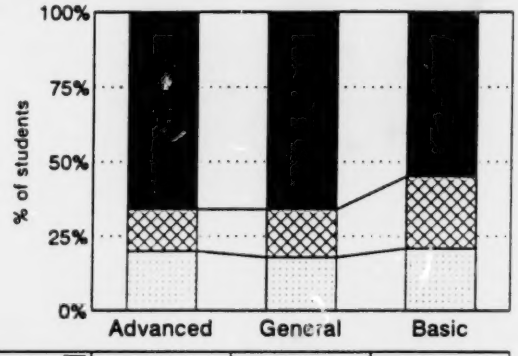


	Advanced	General	Basic
University	81%	26%	14%
College	7%	42%	30%
Work Full-time	1%	8%	24%
Not Sure	7%	19%	29%
Other	4%	5%	3%

Students' Career Plans

Two-thirds (66%) of students studying in Advanced and General Level courses have one or more specific occupations in mind, compared to slightly over half (55%) of those in Basic Level courses. Among the undecided, those in the Basic Level program (24%) are most likely to indicate that they need help compared to those in Advanced (14%) and General (16%) Level programs. (See Figure 12).

Figure 12: Students' career plans by program level



	Advanced	General	Basic
1 or more occupations	66%	66%	55%
Unsure/need help	14%	16%	24%
Unsure/need no help	20%	18%	21%

The relationship between age and career plans is reported in The 1991 Every Secondary Student Survey: Initial Findings (See Brown, Cheng, Yau & Ziegler, 1992).

SUMMARY

There are some characteristics that markedly distinguish between students at the Advanced Level (university stream) and those at the General and Basic Levels. For instance:

- Female and male students are somewhat evenly represented at the Advanced Level, but males outnumber females at the other two program levels, especially the General Level.
- White and Asian students are slightly overrepresented at the Advanced Level, but Blacks and Aboriginals are overrepresented at the other two program levels.
- Over two-thirds of students at the Advanced Level are from two-parent homes, compared to about half at the other levels.
- The majority of students at the Advanced Level are from high socio-economic (SES) families, while the majority at the General and Basic Levels are from lower SES backgrounds.
- Students at the Advanced Level tend to participate in extra-curricular activities more often than those at the General and Basic Levels.
- Students at the Advanced Level tend to spend more time on homework than their counterparts at the other two program levels.
- Of the three program levels, students enroled in General Level courses tend to spend more hours doing part-time work.

Comparisons to 1987 Data

Table 1 shows that between 1987 and 1991, there has been a slight increase in the enrolment of Advanced level courses, a decrease in the Basic level, and no change in the General level for the overall student population. Further analyses of program level by various socio-economic indicators reveal the following trends over time:

Table 1: Program level by socio-economic characteristics, 1987 vs 1991

SOCIO-DEMOGRAPHIC CHARACTERISTICS	1987			1991			Rate of change
	Advanced	General	Basic	Advanced	General	Basic	Advanced
OVERALL	72%	21%	7%	74%	21%	5%	+3%
GENDER							
Female	76%	18%	6%	79%	17%	4%	+4%
Male	68%	24%	8%	71%	24%	5%	+4%
RACE *							
White	72%	21%	7%	75%	20%	4%	+4%
Asian	85%	13%	2%	80%	16%	4%	-6%
Black	54%	32%	14%	55%	35%	9%	+2%
PLACE OF BIRTH							
Canada	73%	21%	6%	78%	18%	4%	+7%
Outside Canada	70%	22%	8%	71%	24%	5%	+1%
FIRST LANGUAGE							
English Only	72%	20%	7%	77%	18%	5%	+7%
English & Other	85%	12%	3%	83%	15%	2%	-2%
Other Only	73%	22%	5%	72%	24%	5%	-1%
PARENTAL PRESENCE							
Both parents	75%	20%	5%	80%	17%	3%	+7%
Mother only	67%	23%	10%	70%	23%	7%	+4%
Father only	73%	21%	6%	71%	23%	6%	-3%
Not with parents	66%	27%	7%	63%	31%	6%	-5%
SOCIO-ECON. STATUS							
Professional	94%	6%	<1%	92%	7%	1%	-2%
Semi-Professional	85%	13%	2%	83%	15%	2%	-2%
Skilled	71%	25%	4%	71%	24%	5%	0%
Unskilled	60%	31%	9%	60%	31%	8%	0%
Non-renumerative	59%	30%	11%	62%	29%	9%	+5%

* The number of Aboriginal students in each subgroup is too small for valid comparisons.

Gender

Since 1987, both males and females have experienced an increase in the proportions of students studying in Advanced level courses and the gap favouring females in the university stream has remained the same over time. (See Table 1.)

Race

In both 1987 and 1991, Asians have the highest percent of students studying in Advanced level courses, followed by Whites and Blacks. However, the gap between Asians and the other racial groups in the Advanced Level has narrowed since 1987. This is due both to a decline of Asians and to an increase of the other groups studying at this level.

In addition, there has been a narrowing of the gap between Blacks and students of White and Asian descent studying at the Basic Level, due to the substantially lower percentage of Blacks enroled in this type of program. (See Table 1.)

Place of Birth

In both periods, Canadian-born students are more inclined than foreign-born students to study in Advanced level courses. The gap between the two has widened due to the greater increase among the Canadian-born who choose the university track . (See Table 1.)

First Language(s)

Students who speak "English and another language" have the highest percent enroled in the university-bound track in both periods. During that time span, the "English only" group alone experienced a gain, while the other two language groups experienced a slight decline in the enrolment of Advanced Level courses. (See Table 1.)

Parental Presence at Home

Over time, students living with two parents remain more likely than students living with single parent or on their own to study in the university stream. In fact, the gap between this group of students and the others has widened slightly during the four year period. (See Table 1.)

Parents' Occupation

In both periods, it is very clear that the higher the students' family SES, the higher the percentage enroled in Advanced level courses. But there is a slight increase over time in the percent of students with unemployed parents who study at the Advanced Level. It remains to be seen whether this gain will continue over a longer period of time. (See Table 1.)

2 STUDENTS' ACADEMIC ACHIEVEMENT

In this report, students' academic achievement is defined by two outcome indicators: credit accumulation and school marks. Both sets of data were derived from students' credits and school marks file maintained by Toronto Board's Computer Information Services Department.

2.1 Overall Achievement

Credit accumulation

According to King and his colleagues (1988), "The vast majority of students surveyed in [the] study left school because they were so far behind [in terms of credit accumulation] that the likelihood of graduation was too remote a possibility (p.130)." An internal study by Research Services also demonstrates that students who fail to accumulate a certain minimum number of credits at their respective grade levels are at a higher risk of dropping out than others. For instance, students who have attained fewer than seven credits in their first secondary school year are more likely to drop out than their peers; students who have accumulated fewer than 13 credits by the end of their second year also tend to be at risk; and so on. Because of these findings, credit accumulation is used in this study as a way of identifying students who are likely to be at risk. Table 2 shows the proportion of at-risk students as defined by the minumum credits earned in relation to the number of secondary school years they have attended.

Table 2: Proportion of at-risk students

At-risk criteria	Proportion at risk
Year 1 students with less than 7 credits	31%
Year 2 students with less than 13 credits	35%
Year 3 students with less than 18 credits	23%
Year 4 – less than 23 credits / Year 5 – less than 28 credits	16%
Over 5 years – less than 30 credits	41%
Overall proportion who are at risk	25%

A conservative estimate indicates that about a quarter of the secondary school students are at risk of failing to finish their secondary school within five or six years.[3] It should be noted that the proportion of at-risk students (excluding those who have been in secondary schools for over five years and are still far from completing 30 credits) is higher among those in the earlier years of secondary school, especially Year 2, than those who have made it through their second or third year.

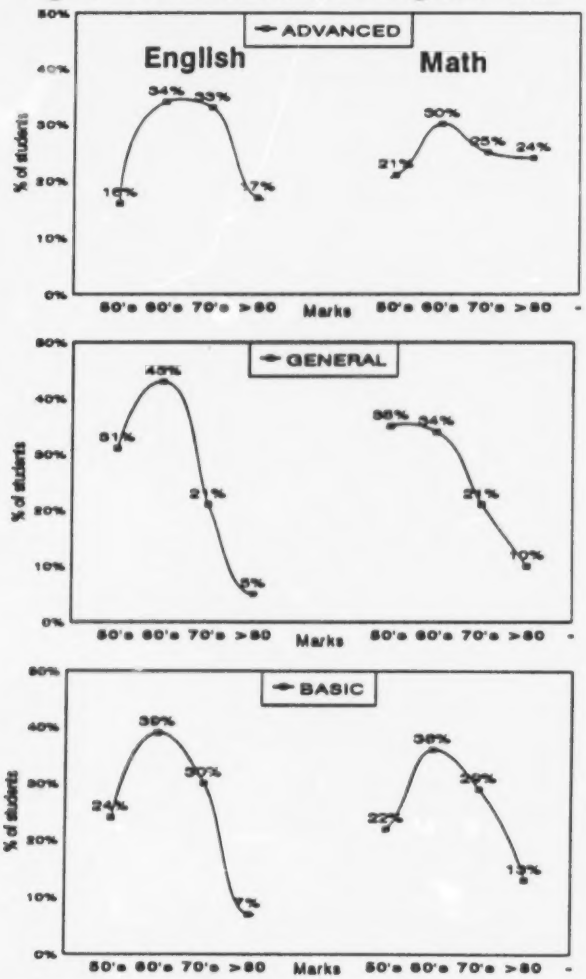
3. Note that the at-risk rate is a *predicted* estimate for all participants in the 1991 secondary school student survey. Since the estimate is based on the *minimum* number of credits earned for each respective grade or year, one should consider the rate as a conservative assessment rather than an overestimate.

School marks

Another achievement indicator is students' cumulative average marks in English and math, the two core subject areas. Figure 13 presents the overall English and math mark distributions for students at each program level. The overall trends are similar to those reported in the 1987 every secondary school student survey in that:[4]

- at the Advanced Level, there is a high concentration in the middle range (60s and 70s), tapering off more or less evenly to the two tails (50s and over 80); the pattern is more salient in English than in math;
- at the General Level, mark distributions are more highly concentrated at the lower end - 50s and 60s.
- at the Basic Level, mark distributions also tend to be concentrated at the lower end, though not as markedly as at the General Level.

Figure 13: Mark distribution - English and math



4. For more detailed comparisons to 1987, see p.37.

A combined indicator - credit accumulation and school marks

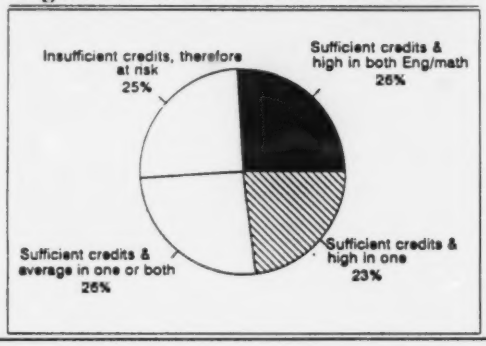
It should be noted that neither credit accumulation nor school marks alone can provide a full picture of the achievement level of our secondary school population. While credit accumulation can be used to identify the potentially at-risk students (those who fail to accumulate a certain minimum number of credits), it cannot indicate how well the majority who are not at risk have been doing. On the other hand, while school marks can show the performance of most students, students' failed credits are not counted, as they are not recorded in student record file; therefore, those who have failed their courses cannot be determined. In short, only a partial picture can be captured by each of the two indicators.

For a more complete view, this report combines both credit accumulation and school marks as a single school achievement indicator. The combined indicator includes four achievement levels:

1. those who have accumulated "sufficient" credits[5] and have attained *high marks* (70 and over) in *both* English and math;
2. those who have accumulated "sufficient" credits and have earned *high marks* (70 and over) in *either* English *or* math;
3. those who have accumulated "sufficient" credits but have only earned *average marks* (50-69) in both English and math; and
4. those who have not earned "sufficient" credits and are thus potentially *at risk*.[6]

The advantage of this combined indicator is that it can describe the achievement level of all students, as each student fits into one of the four categories. Using the combined indicator, Figure 14 illustrates that as a whole our secondary school students are evenly distributed among the four achievement levels. That is, each of the four categories accounts for about a quarter of the student population.

Figure 14: Overall students' achievement



5. See Table 2, p.16, for the criteria of minimum credits per year associated with graduation within five or six years.

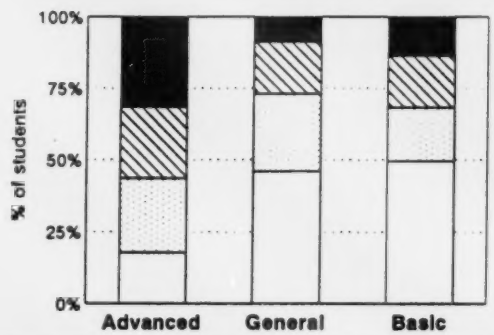
6. It should be noted that among these at-risk students, 7% have indeed attained high marks in both English and math, 18% have high marks in one of the two subject areas, 50% have average marks in both areas, and 25% have failed to accumulate any credits in one or both of these core subject areas.

2.2 Achievement and School-related Factors

Program level

Although the overall distribution of students among the four achievement categories is even, the pattern is less uniform when program level is taken into consideration. As shown in Figure 15, the achievement distribution differs notably from one level of study to another. While a majority of students at the Advanced Level (57%) are in the two high achievement categories (i.e. having sufficient credits plus high marks in English and/or math), only half as many of the students at the other two program levels fall into these categories (27% and 22% respectively). Indeed, about one in two of the General and Basic Level students (46% and 50% respectively) are likely to be at risk of non-completion of the secondary school diploma.

Figure 15: Achievement by program level



	Advanced	General	Basic
High in Eng & math	32%	9%	14%
High in Eng or math	25%	18%	18%
Average in Eng/math	26%	27%	19%
At-risk	18%	46%	50%

School climate

Based on students' response to the seven school-climate statements in the 1991 Every Secondary Student Survey,[7] an attempt was made to see if their academic achievement is related to the way they perceive their schools. In general, students who agree with these statements (which are all positively stated) are more likely to be achieving well than those who do not agree with the statements; however, the percentage differences are too small (0-9%) to be significant. In other words, the school performance of students in this survey does not have a strong association with the way they responded to the school perception questions.

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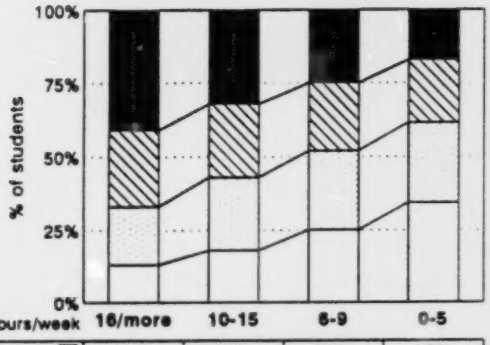
7. See Survey Form A in Appendix 1 (p.41) for the seven statements.

Time spent after school

Homework

Our data suggest a clear linear relationship between achievement and the amount of time spent on homework for the overall student population. As indicated in Figure 16, the more time a student spent on homework the greater her/his chance of being in the high achievement category (i.e. achieving well in *both* core subjects).[8]

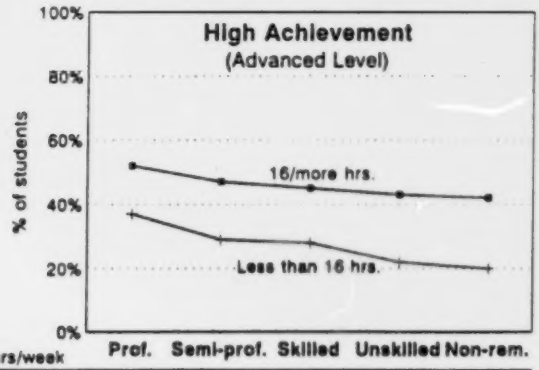
Figure 16: Homework and achievement



Homework hours/week	16/more	10-15	6-9	0-5
High in Eng & math	41%	32%	25%	17%
High in Eng or math	26%	25%	23%	21%
Average in Eng/math	20%	25%	27%	27%
At-risk	13%	18%	25%	34%

In fact, a further analysis indicates that *regardless of family socio-economic background*, Advanced Level students who do 16 or more hours of homework per week are doing consistently better than their counterparts who spend less time on homework. (See Figure 17.)

Figure 17: Homework, socio-economic background, and high achievement



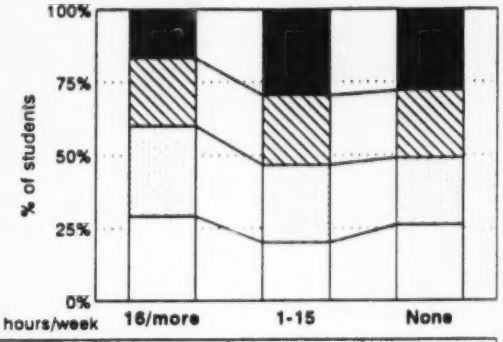
Homework hours/week	Prof.	Semi-prof.	Skilled	Unskilled	Non-rem.
16/more hrs.	52%	47%	45%	43%	42%
Less than 16 hrs.	37%	29%	28%	22%	20%

8. It should be noted that the pattern is less clear among Basic Level students.

Part-time work

For students who spent long hours per week (16 or more, average 23 hours) on part-time jobs, their chance of achieving well is lower than that of their peers who work fewer hours (1-15, average 8 hours). (See Figure 18.) Interestingly, those who do not hold any part-time job are not necessarily more academically advantaged than their peers who work a few hours each week; for them, the likelihood of success is similar. This finding in fact agrees with that described in the report of King and his colleagues (1988). "The impact of part-time work on achievement in school appears to be insignificant except for those who work long hours - in excess of 15 hours per week (p.7)."

Figure 18: Part-time work and achievement

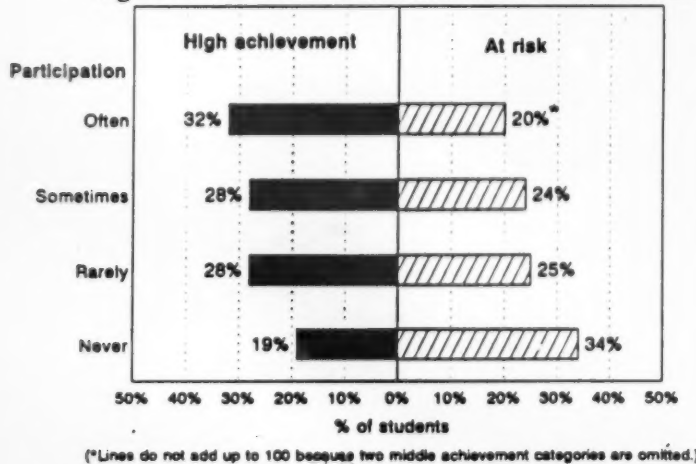


Working hours/week	16/more	1-15	None
High in Eng & math	17%	30%	28%
High in Eng or math	23%	24%	23%
Average in Eng/math	31%	27%	23%
At-risk	29%	20%	26%

Extra-curricular activities

While spending too much time on part-time jobs seems to be a distraction from academic work, participation in extra-curricular activities appears to have some positive, though mild, association with school achievement. As illustrated in Figure 19, active participants are more likely to be high achievers than to be at risk (32% versus 20%), but the reverse pattern is true of those who never participate (19% versus 34%).

Figure 19: Extra-curricular activities and achievement



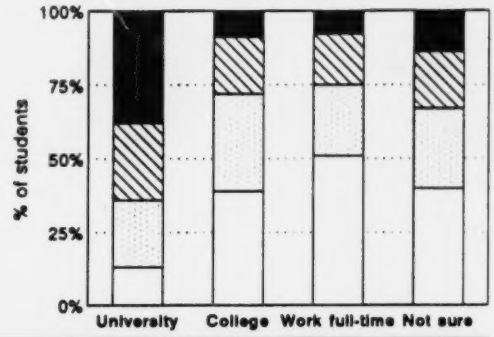
(*Lines do not add up to 100 because two middle achievement categories are omitted.)

It should, however, be noted that this relationship applies mainly to students at the Advanced Level, and to a lesser extent to those at the Basic Level. For those at the General Level, there is no clear tie between academic achievement and extra-curricular participation. For instance, at the General Level the at-risk rate of active participants is similar to that of those who seldom or never participate in extra-curricular activities (47% versus 46%).

Future plans

As far as students' future plans are concerned, our data shows a close link between their achievement and their post-secondary school plans (whether it is their own plan, or what they think their parents expect). Nearly two-thirds of those who wish to attend university are performing well in either or both core subject areas. (See Figure 20.) On the other hand, half of the students who plan to work full-time after their secondary school are potentially at risk of dropping out (as determined by lack of credits), a proportion which is higher than those who are not sure of their post-secondary school plan (40%), or those who opt for community college (39%).[9]

Figure 20: Students' post-secondary school plan and achievement



	University	College	Work full-time	Not sure
High in Eng & math	38%	9%	8%	14%
High in Eng or math	26%	19%	17%	19%
Average in Eng/math	23%	33%	24%	27%
At-risk	13%	39%	51%	40%

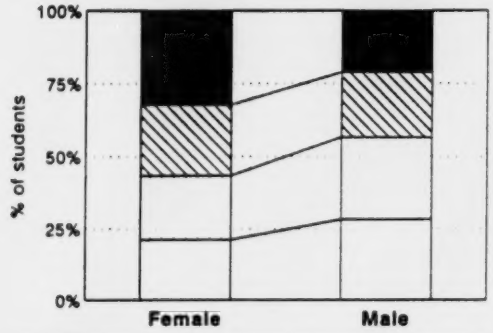
9. It should be noted that while there is a clear relationship between achievement and post-secondary school plans, there is no obvious association between achievement and whether students have decided on their career choice(s).

2.3 Achievement and Socio-demographic Characteristics

Gender

Academically, female students tend to fare better than their male counterparts. Over half (56%) of the female students are in the two high achievement categories, while about the same proportion (57%) of the male students are average achievers or are at risk. (See Figure 21.)

Figure 21: Overall achievement by gender



	Female	Male
High in Eng & math	32%	21%
High in Eng or math	24%	22%
Average in Eng/math	22%	28%
At-risk	21%	28%

This gender pattern holds true regardless of program level and race. (See Table 3.)

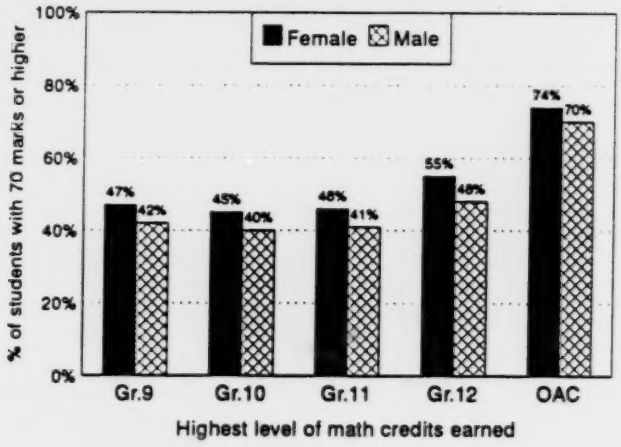
Table 3: Achievement by gender - program level and race

		High achievement in Eng.& math			At risk		
		Female (% of students)		Male	Female (% of students)		Male
PROGRAM LEVEL	Advanced	37%	vs.	27%	15%	vs.	20%
	General	11%	vs.	8%	43%	vs.	48%
	Basic	16%	vs.	12%	46%	vs.	52%
RACE	White	31%	vs.	21%	22%	vs.	29%
	Asian	43%	vs.	28%	15%	vs.	20%
	Black	15%	vs.	10%	32%	vs.	40%
	Aboriginal	14%	vs.	6%	43%	vs.	50%

Even in math, which is traditionally considered to be the weak subject of female students, the gender/achievement pattern still holds. As demonstrated in Figure 22, whether it is for the younger students who have only completed grade 9 math or for the more senior students who

have taken the OAC level math, a slightly higher percentage of girls than boys have an average math score of 70 or higher.[10]

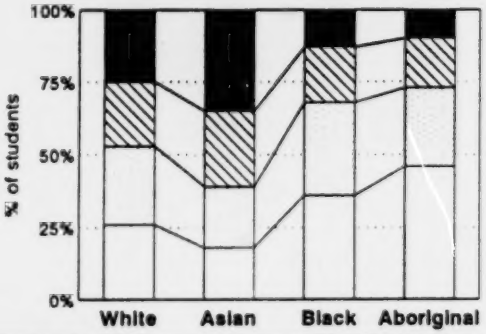
Figure 22: High math achievement by gender (Advanced Level)



Race

Figure 23 shows the overall achievement profile for each of the four racial groups. Asian students have the highest proportion achieving well and the lowest proportion at risk, followed by Whites, who are evenly distributed among the four achievement levels. Of Black students, over a third (36%) are at risk; but Aboriginal students are the highest risk group with nearly half (46%) failing to accumulate sufficient credits to graduate within five or six years.

Figure 23: Achievement by race

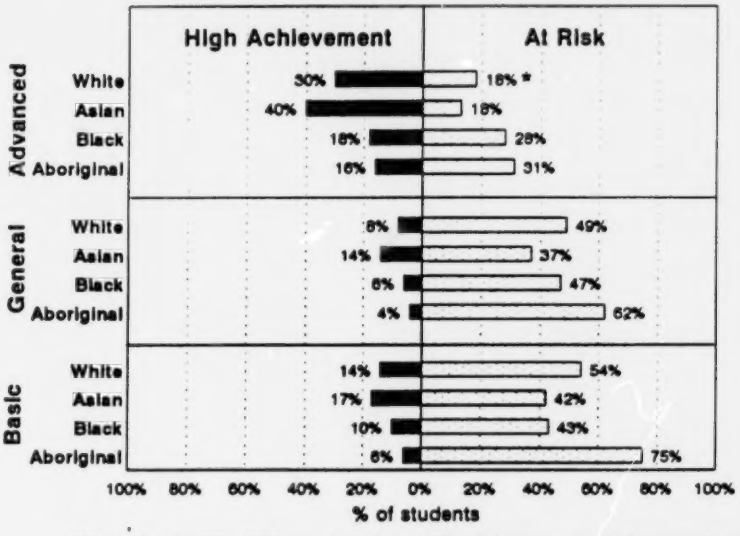


	White	Asian	Black	Aboriginal
High in Eng & math	25%	35%	13%	10%
High in Eng or math	22%	26%	19%	17%
Average in Eng/math	27%	21%	32%	27%
At-risk	26%	18%	36%	46%

10. Even if 80 is used as the cut-off, girls as a whole are still doing slightly better than boys.

A further analysis indicates that the above racial pattern of achievement is duplicated at the Advanced Level, which contains almost three quarters of the total secondary student population. At the other two program levels, however, achievement gaps among racial groups are narrower. (See Figure 24.) For instance, in General Level program, the achievement of Black and White students are similar; and in Basic Level program, White students are more likely to be at risk than their Black counterparts.

Figure 24: Achievement by program level and race



(*Lines do not add to 100 because the two middle achievement categories are omitted.)

For a detailed breakdown of performance by major cultural/language groups, see Table 4 (p.26).

The following sections explore how students' achievement is related to other demographic variables such as first language(s), birthplace, and family situation. In each of these background variables, we shall also examine if its relationship with achievement differs among racial groups. To ensure comparability and consistency, racial comparisons will be based on the achievement of students at the same level of study; and Advanced Level will be chosen, as it represents the large majority (74%) of the secondary school student population.

Table 4: Achievement by cultural/language groups

ACHIEVEMENT	OVERALL	White						Asian					Black				
		English only	Portuguese	Jewish	Greek	Italian	Polish	Chinese	Indochina	Tamil	Indian	Korean	Canada	Caribbean	Africa	Hispanic	Iranian
All program levels																	
High in both English & Math	26%	26%	16%	42%	23%	16%	28%	41%	31%	19%	28%	44%	16%	9%	13%	13%	25%
High in either English or Math	23%	23%	21%	27%	23%	16%	21%	27%	25%	31%	23%	24%	20%	21%	20%	21%	24%
Average in both English & Math	26%	26%	30%	18%	31%	38%	24%	19%	22%	28%	25%	17%	29%	38%	28%	28%	20%
At risk	25%	25%	33%	13%	23%	30%	27%	12%	22%	22%	24%	15%	35%	32%	39%	38%	30%
Advanced level																	
High in both English & Math	32%	31%	23%	43%	27%	21%	32%	46%	37%	22%	31%	46%	21%	12%	17%	17%	31%
High in either English or Math	25%	24%	25%	27%	24%	18%	22%	26%	26%	35%	25%	23%	21%	20%	24%	26%	25%
Average in both English & Math	26%	27%	32%	18%	32%	42%	23%	19%	22%	28%	25%	18%	32%	39%	32%	29%	21%
At risk	17%	18%	20%	12%	17%	19%	23%	9%	15%	15%	19%	13%	26%	28%	27%	28%	23%
General level																	
High in both English & Math	9%	9%	8%	26%	8%	5%	8%	17%	14%	9%	15%	8%	5%	6%	7%	5%	10%
High in either English or Math	18%	17%	17%	33%	16%	12%	15%	31%	22%	18%	23%	31%	17%	19%	14%	14%	21%
Average in both English & Math	27%	22%	29%	18%	28%	32%	30%	24%	26%	29%	23%	15%	27%	38%	22%	28%	15%
At risk	46%	53%	46%	23%	47%	51%	47%	29%	38%	44%	40%	46%	52%	37%	57%	53%	54%
Basic level																	
High in both English & Math	13%	14%	13%	–	21%	23%	–	17%	18%	–	–	–	10%	12%	–	12%	–
High in either English or Math	18%	14%	15%	–	21%	6%	–	24%	24%	–	–	–	23%	26%	–	16%	–
Average in both English & Math	19%	16%	18%	–	21%	16%	–	23%	17%	–	–	–	17%	32%	–	16%	–
At risk	50%	56%	54%	–	38%	55%	–	37%	42%	–	–	–	50%	30%	–	56%	–

– The proportionate distribution is not shown because the number of students enroled in the particular program is small (fewer than 25).

• This grouping is based on data gathered from several survey questions: race, ethnicity, birthplace, home language, and parents' first language.

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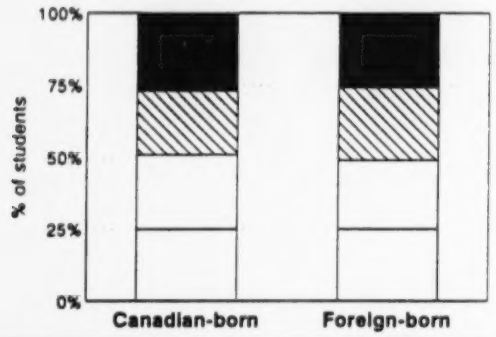
Place of birth

In general, students' birthplace (Canada versus foreign countries) does not have a significant association with their achievement. (See Figure 25.) In both cases, students are evenly spread out over the four achievement levels.

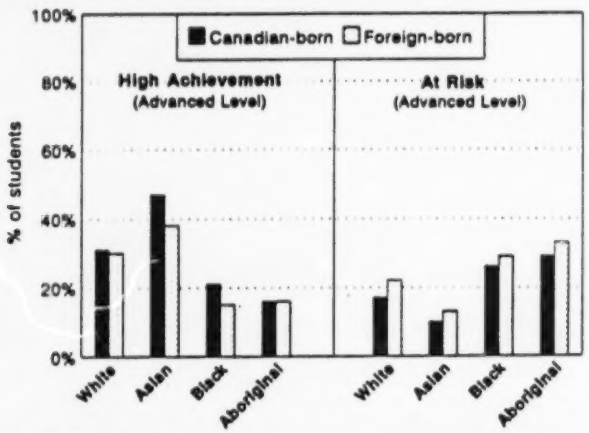
Figure 25: Achievement by birthplace



	Canadian-born	Foreign-born
High in Eng & math	27%	26%
High in Eng or math	22%	25%
Average in Eng/math	26%	24%
At-risk	25%	25%

A further breakdown by racial groups indicates that this is particularly true of White and Aboriginal students at the Advanced Level. (See Figure 26.) For Asians and Blacks, those who were born in Canada seem to have a slight advantage over their foreign-born counterparts in doing well in both English and math.

Figure 26: Achievement by birthplace and race - Advanced Level



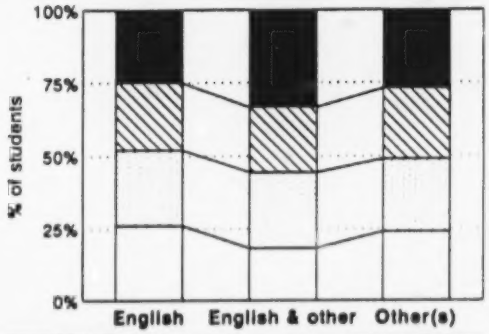
	High Achievement (Advanced Level)				At Risk (Advanced Level)			
	White	Asian	Black	Aboriginal	White	Asian	Black	Aboriginal
Canadian-born	31%	47%	21%	16%	17%	10%	26%	29%
Foreign-born	30%	38%	15%	16%	22%	13%	29%	33%

It should also be noted that although across the board foreign-born students, especially those who arrived recently (since 1987), seem more likely to be at risk than their Canadian-born peers, the proportionate difference is small - 5% difference for Whites, 3% difference for both Asians and Blacks, and 4% difference for Aboriginals.

First language(s)

In this analysis, students' first languages are grouped into three categories: English only[11], English and another language, and "other" language(s). As illustrated in Figure 27, there are slight achievement differences among these three language groups. Students whose mother tongue is both English and another language are more likely to be achieving well and less likely to be at risk than those whose first language is solely "other" or "English". Yet the percentage difference is small (33% versus 27% and 25% respectively).

Figure 27: Achievement by first language(s)



	English	English & other	Other(s)
High in Eng & math	25%	33%	27%
High in Eng or math	23%	22%	24%
Average in Eng/math	26%	26%	25%
At-risk	26%	18%	24%

It should be noted that the above pattern mainly applies to Asian students. (See Figure 28.) Among White students at the Advanced Level, those whose mother tongue is English only or English and another language have an equal chance of success. For Black students, performance is similar regardless of their language background.[12] It is, however, noteworthy that across all racial groups the proportion at-risk is lowest among the dual-language speakers.

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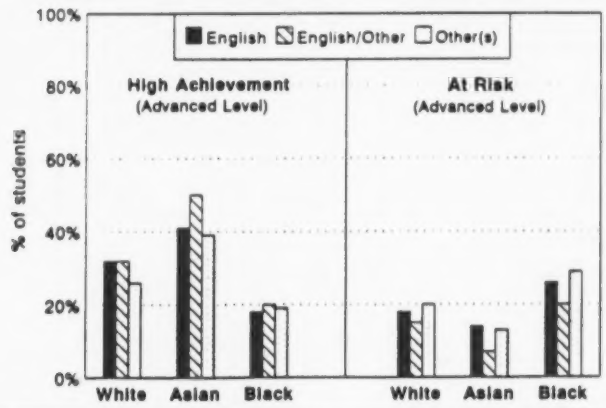
11. Since students whose mother tongue is French only make up approximately one percent of the student population, they are not mentioned here.

12. The number of Aboriginals in each of the sub-groups is too small for valid comparisons.

Figure 28: Achievement by first language(s) and race



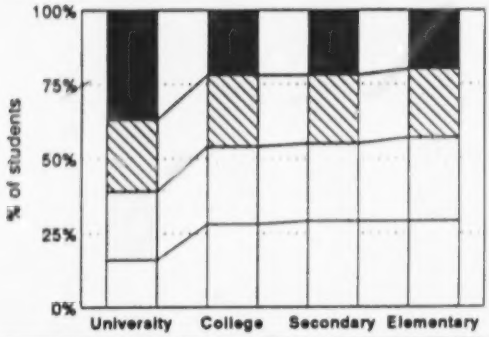
English	32%	41%	18%		18%	14%	26%
English/Other	32%	50%	20%		15%	7%	20%
Other(s)	26%	39%	19%		20%	13%	29%

Family background

Parents' educational level

Figure 29 demonstrates that students whose parents have a university background are more likely to be the high achievers and less likely to be at risk than students whose parents have a lower level of education. For the latter groups of students, whether their parents have community college, secondary or elementary school education, their likelihood of success or failure is similar if not the same.

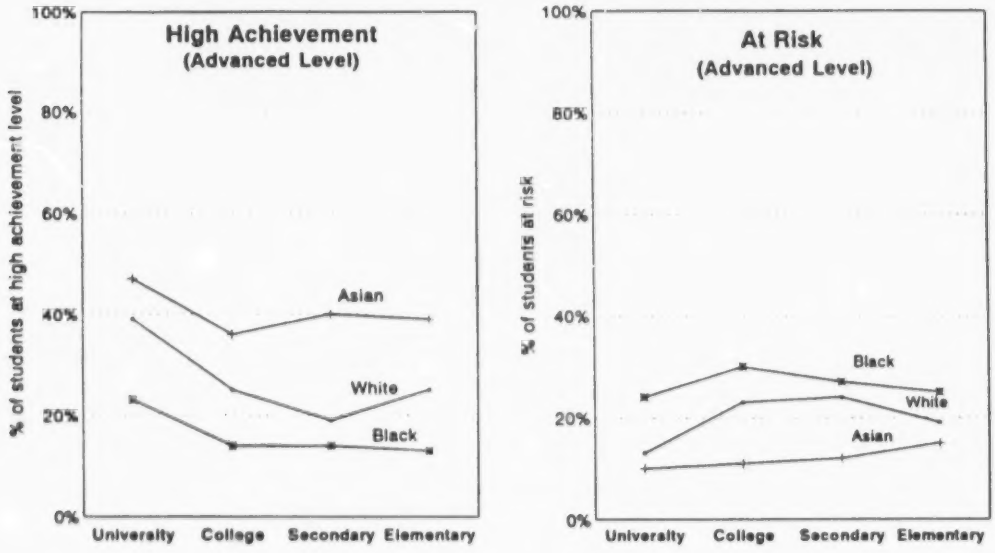
Figure 29: Achievement by parents' education



High in Eng & math	37%	22%	22%	20%
High in Eng or math	24%	24%	23%	23%
Average in Eng/math	23%	26%	26%	28%
At-risk	16%	28%	29%	29%

This finding holds true across all racial groups. (See Figure 30.) However, the discrepancy between those with university educated parents and those with non-university educated parents is most apparent among White students. For instance, at the Advanced Level, only 19% of White students whose parents have secondary level education are high achievers; this is half the proportion of those whose parents are university-degree holders (39%) - a relative percentage difference of 51%.[13] The discrepancy is least salient among Asian students; for them the widest gap is between those with university educated parents and those with college educated parents (47% versus 36%, a relative difference of 23%).

Figure 30: Achievement by parents' education and race



RACE	High achievement								At risk							
	University	vs	College	vs	Secondary	vs	Elementary		University	vs	College	vs	Secondary	vs	Elementary	
Asian	47%	vs	36%	vs	40%	vs	39%		10%	vs	11%	vs	12%	vs	15%	
White	39%	vs	25%	vs	19%	vs	25%		13%	vs	23%	vs	24%	vs	19%	
Black	23%	vs	14%	vs	14%	vs	13%		24%	vs	30%	vs	27%	vs	25%	

For Aboriginals, the number of students in each sub-group is too small for valid comparisons.

13. This is calculated by: (39-19)/39 = 51.

Parents' occupation

Students of professional parents are also more likely to be in the two high achievement levels and less likely to be at risk than other students. This is not surprising, considering that 86% of the professional parents are also university-degree holders. But unlike the variable of parents' education, which does not show a strong relationship with students' achievement beyond those whose parents have university education, parents' occupation does bear a clear linear association with students' achievement. (See Figure 31.) That is, the higher the parents' occupational level, the higher the student's chance of success, and the lower her/his likelihood of failure.

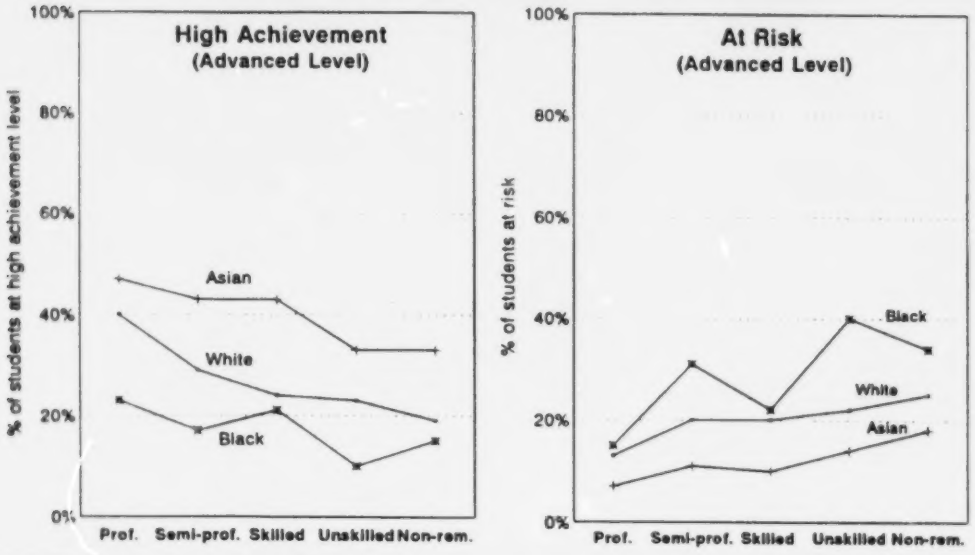
Figure 31: Achievement by parents' occupation

	Prof.	Semi-prof.	Skilled	Unskilled	Non-remu.
High in Eng & math	37%	28%	25%	20%	20%
High in Eng or math	24%	24%	24%	22%	23%
Average in Eng/math	23%	25%	26%	26%	25%
At-risk	15%	23%	25%	32%	33%

It should, however, be noted that within the General and Basic Level programs, this linear relationship does not hold. For these students, their chance of being at risk is equally high (42-55%) regardless of parents' occupational level. This finding indeed corroborates the similar finding documented in the 1987 secondary student survey report (Cheng, Tsuji, Yau, & Ziegler, 1989, pp.67-68, 73).

This linear relationship is also less evident among Black students. (See Figure 32.) For instance, among Black students at the Advanced Level, those whose parents are in the skilled or semi-skilled category outperform those whose parents are semi-professionals. Nevertheless, it should be pointed out that among Black students, those whose parents are professionals still have the greatest chance of success and lowest chance of being at risk. In fact, their at-risk chance is similar to comparable White students, and is smaller than other White students from lower socio-economic families.

Figure 32: Achievement by parents' occupation and race



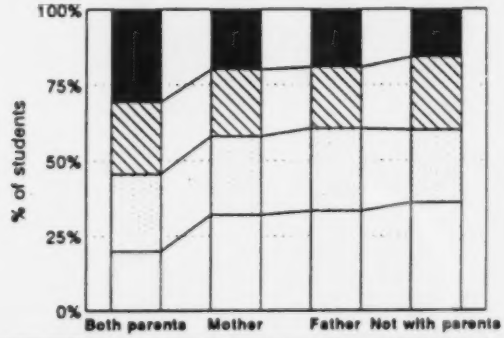
RACE	High achievement					At risk				
	Prof.	Semi-prof	Skilled	Unskilled	Non-remun.	Prof.	Semi-prof	Skilled	Unskilled	Non-remun.
Asian	47%	43%	43%	33%	33%	7%	11%	10%	14%	18%
White	40%	29%	24%	23%	19%	13%	20%	20%	22%	25%
Black	23%	17%	21%	10%	15%	15%	31%	22%	40%	34%

For Aboriginals, the number of students in each sub-group is too small for valid comparisons.

Parental presence at home

Figure 33 shows that students living with both parents have some advantage in terms of school achievement over those living with single parents or those not living with parents.

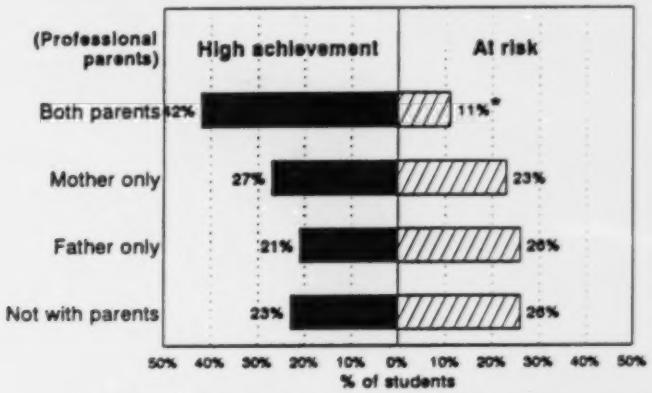
Figure 33: Achievement by parental presence at home



	Both parents	Mother	Father	Not with parents
High in Eng & math	31%	20%	19%	16%
High in Eng or math	24%	22%	20%	24%
Average in Eng/math	26%	26%	27%	24%
At-risk	20%	32%	33%	36%

This overall relationship between achievement and parental presence at home persists regardless of parents' SES. For instance, even among children of professional parents, those living with both parents are still more likely to be in the high achievement category than those with mother only, who in turn are better off than those with father only or not with parents at all. (See Figure 34.)

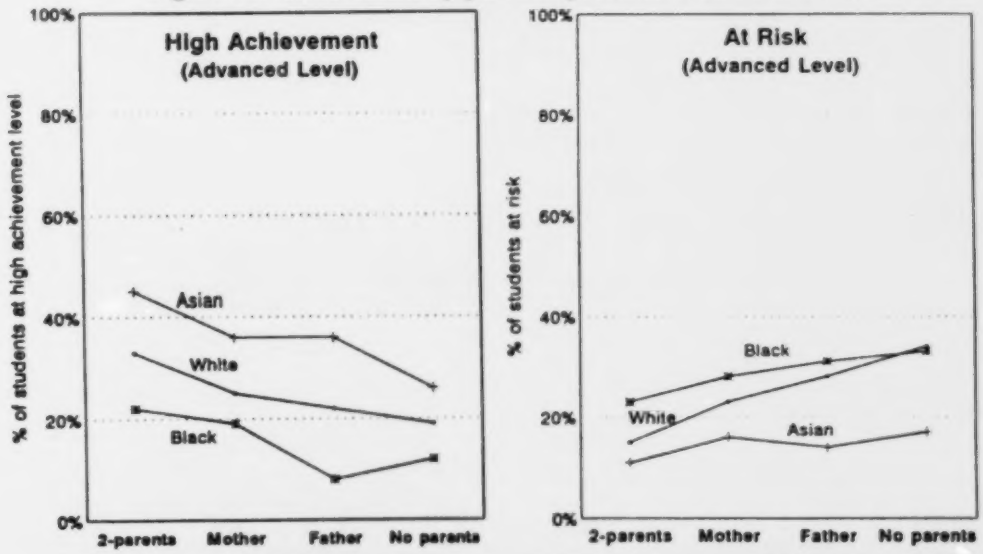
Figure 34: Achievement by parental presence at home, among professionals



(*Lines do not add to 100 because two middle achievement categories are omitted.)

The superior performance of two-parent students is also true across all racial groups. (See Figure 35.) Nonetheless, it is noteworthy that among Black students at the Advanced Level, the achievement gap between those with both parents and those with mother only, the two major family-setting groups, is small (22% versus 19% in the high achievement category).

Figure 35: Achievement by parental presence at home and race



RACE	High achievement: Both parents		Mother		Father		Not with parents	At risk: Both parents		Mother		Father		Not with parents
Asian	45%	vs	36%	vs	36%	vs	26%	11%	vs	16%	vs	14%	vs	17%
White	33%	vs	25%	vs	22%	vs	19%	15%	vs	23%	vs	28%	vs	34%
Black	22%	vs	19%	vs	8%	vs	12%	23%	vs	28%	vs	31%	vs	33%

For Aboriginals, the number of students in each sub-group is too small for valid comparisons.

A summary of factors related to achievement

To recapitulate, factors that seem to bear a strong tie with students' school performance, especially with regard to high achievers in *both* English and math are:

- **program level** - e.g. 32% at the Advanced Level are high achievers versus 9% and 14% at the General and Basic Levels respectively;
- time spent on **homework** - e.g. 41% of those who spent 16 or more hours on homework per week are high achievers in both English and math, compared with 17% of those who do fewer than 6 hours of homework a week;[14]
- students' expected **post-secondary school plans** - e.g. 38% who plan to go on to university are high achievers versus 8% of those who plan to work full-time after high school;
- students' **racial background** - e.g. 35% of Asians are achieving well compared with 10% of Aboriginals;
- **parents' educational background** - e.g. 37% of those whose parents have university education are high achievers versus 20% whose parents have elementary level education only (this is especially true of White students);
- parents' **occupation** - e.g. 37% of those whose parents are professionals are high achievers as opposed to 20% of the parents who are unskilled labourers.

Student achievement also appears to have some link with the following factors, though not as striking as those mentioned above. They are:

- time spent on **part-time job** - e.g. 30% who work 1-15 hours a week are achieving well compared with 17% who spent more hours on part-time work;
- participation in **extra-curricular activities** - e.g. 32% who often participate versus 20% who never participate are doing well;
- students' **gender** - e.g. 32% of females are at the high achievement level compared with 21% of males;
- **parental presence at home** - e.g. 31% of those living with both parents are high achievers as opposed to 20% who live with mother only.

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14. Over two-thirds (67%) of those who do 16 hours or more hours of homework achieve well in both or either subject, versus 39% of those who do fewer than 6 hours.

Finally, there are four variables that have been examined but have not shown a clear association with school achievement. They are: students' perceptions of school climate, their career plans, whether students are English-speaking or non-English speaking, and whether students are Canadian- or foreign-born.

2.4 Comparisons to 1987 Data

So far in this report, students' achievement was defined by *a combination* of school marks and credit accumulation. But in the 1987 study, these two measures were used as *separate* outcome indicators. To ensure comparability, in this section school marks alone will be used for comparing students' performance over these two time periods.

As discussed earlier (see p.17), the mark distribution patterns at each program level are similar to those of 1987. However, since 1987 there is a slight increase in the percentages of students having an average mark of 70 or over in either subject area across all levels of study. (See Table 5.) This is most evident at the Basic Level, where the proportion of students obtaining high marks in their English courses has risen by about a quarter (28%) over the last five years.

Table 5: Proportion of students with high marks in English and math, 1987-88 and 1991-92

% of students with high marks	English marks 70s	English marks 80/over	Overall Rate of Change	Math marks 70s	Math marks 80/over	Overall Rate of Change
Advanced Level						
1987-88	32%	14%	+9%	24%	23%	+4%
1991-92	33%	17%		25%	24%	
General Level						
1987-88	19%	4%	+13%	19%	9%	+11%
1991-92	21%	5%		21%	10%	
Basic Level						
1987-88	24%	5%	+28%	26%	12%	+11%
1991-92	30%	7%		29%	13%	

Table 6 further lists, according to various socio-demographic classifications, the percentages of Advanced Level students who have average marks of 70 or higher in both English and math.[15] The table also presents for each subgroup the rate of change, which shows the amount of increase or decrease in the proportion of students who are high achievers over the last five years.

15. Because of the single measure used, the 1991-92 figures cited in this table are slightly bigger than those in the previous sections, where high achievement was defined by high marks plus sufficient credits accumulated.

Table 6: High achievers, 1987-88 vs 1991-92 (Advanced Level)

SOCIO-DEMOGRAPHIC CHARACTERISTICS	% of students with high marks in Eng. & math	1987-88	1991-92	Rate of Change
Gender	Female	39%	39%	0%
	Male	27%	29%	+7%
Race*	White	33%	32%	-3%
	Asian	42%	41%	-2%
	Black	16%	19%	+19%
Place of birth	Canadian-born	33%	34%	+3%
	Foreign-born	33%	35%	+6%
First language	English only	31%	32%	+3%
	English and other	36%	39%	+8%
	Other only	35%	35%	0%
Parental presence	Both parents	36%	38%	+6%
	Mother only	27%	28%	+4%
Socio-economic status	Professional	42%	42%	0%
	Semi-professional	34%	34%	0%
	Skilled/semi-skilled	32%	32%	0%
	Unskilled	31%	28%	-10%
	Non-remunerative	30%	28%	-7%
OVERALL		33%	34%	+3%

*The number of Aboriginals is too small for valid comparisons.

The rate-of-change column shows that in most of the subgroups little or no change has occurred since 1987 - less than 10% increase or decrease. This implies that the overall performance trends and the achievement gaps among different subgroups have prevailed over time. For instance, in both years, a greater proportion of females than males are high achievers. It is true that the percentage of male students who achieve well has increased while that of females has remained constant. However, the percentage increase for male students (7%) is not big enough to close the gap.

Nonetheless, some significant change has been witnessed in two subgroups. One is the notable increase in the proportion of Black students who achieve well in both core subjects (a 19% increase)[16], whereas the rates of change for Whites (-3%) and Asians (-2%) are insignificant. This suggests that the achievement gap between Black students and other racial groups has gradually become narrower over the last five years or so. For instance, while the ratio of Black and White students who achieved well was roughly 1:2 in 1987-88, the ratio has moved closer to approximately 2:3 by 1991-92.

Another group of students who have shown some significant, albeit negative, change over time is students from low SES families, especially those whose parents are unskilled labourers. The proportion of these students who achieve well has dropped by 10% since 1987, while the

16. A closer look indicates that the improvement is mainly attributed to the progress made by Canadian-born Blacks and the recent immigration of African Blacks, who tend to outperform their Carribean counterparts.

percentages of those from higher SES backgrounds have remained constant over the same period. What this means is that the achievement gaps between the very low-income family group and the other SES groups have widened in recent years.

REFERENCES

Brown, R.S., Cheng, M., Yau, M., & Ziegler, S. (1992). The 1991 every secondary student survey: Initial Findings. Toronto: The Board of Education for the City of Toronto, Research Services (Report No.200).

Cheng, M., Tsuji, G., Yau, M., & Ziegler, S. (1989). The every secondary student survey: Fall 1987. Toronto: The Board of Education for the City of Toronto, Research Services (Report No.191).

Cheng, M., Yau, M., & Ziegler, S. (1993). Detailed profiles of Toronto's secondary school students. Toronto: The Board of Education for the City of Toronto, Research Services (To be released).

King, A., Warren, W., Michalski, C., & Peart, M. (1988). Improving student retention in Ontario secondary schools. Ontario Ministry of Education.

Appendix 1

Toronto secondary school student survey forms, November 1991 (Forms A & B)

FORM A

Every Secondary Student Survey, 1991-1992
Research Services
Toronto Board of Education

In order to improve programs in Toronto schools, we need to know more about our students. This survey is confidential. No information on individual students will be shared or reported. Information on all 30,000 students is combined to get an overall picture of students and schools.

Please help us get the information to describe our students and improve our programs by answering the questions below. If any particular question causes you concern, skip it.

A **At what level are you taking most of your courses this year?** (Circle one number only.)

1 Basic
2 General
3 Advanced
4 Non-streamed (for Rosedale Heights students only)

B **What do you plan to do after leaving high school?** (Circle one number only.)

1 I'm not sure yet
2 To attend community college (for example: George Brown, Seneca, Centennial)
3 To go to work full-time
4 To attend university (for example: York, Guelph, Ryerson)
5 Other (describe)_____

C **On average, how much time do you spend doing homework each week– Monday through Sunday?** (Circle one number only.)

1 About _____ hours each week.
2 None

D **Besides going to school, do you work on weekdays– Monday through Friday?** (Do not include the job that you take for your co-op program. Circle one number only.)

1 Yes, about _____ hours between Monday and Friday.
2 No, I do not work on weekdays.

E **Do you work on weekends– Saturday and/or Sunday?** (Circle one number only.)

1 Yes, about _____ hours Saturday and/or Sunday.
2 No, I do not work on weekends.

F **How often do you take part in extra-curricular activities: for example sports, yearbook, clubs?** (Circle one number only.)

1 Often
2 Sometimes
3 Rarely
4 Never

G **Please indicate how much you agree or disagree with each of the following statements about your school.** (Circle one number for each statement.)

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
a. I feel I "belong" in this school.	1	2	3	4	5
b. This school has an atmosphere that encourages students to learn.	1	2	3	4	5
c. This school treats students of all races and ethnic backgrounds fairly and equally.	1	2	3	4	5
d. Extra help is available at school when I need it.	1	2	3	4	5
e. Students at this school have enough say over the things that are important to them.	1	2	3	4	5
f. Most teachers at this school make an effort to get to know their students.	1	2	3	4	5
g. My school gives students the help they need for planning their future education and careers.	1	2	3	4	5

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H. Where were you born? (Circle one number only.)

1 Canada (If born in Canada, please go to question "J")
2 Other (specify)_____

I. If you were not born in Canada, when did you arrive in Canada? 19___

J. To which of the following groups do you belong? (Circle one number only.)

1 Aboriginal (Native people of North or South America)
2 Asian
3 Black
4 White
5 Mixed
6 Other (describe)_____

K. Do you think of yourself as Canadian? (Circle one number only.)

1 Yes
2 No

L. In addition to (or instead of) Canadian, please indicate which ethnic or cultural group(s) your parents/ancestors belong to. (Circle as many as appropriate.)

1 African
2 Arab
3 British (English, Scottish, Irish, Welsh)
4 Bulgarian
5 Caribbean
6 Chinese
7 Dutch
8 East Indian
9 Filipino
10 French
11 German
12 Greek
13 Iranian/Persian
14 Italian
15 Jewish
16 Korean
17 Native American/Metis (including North/South America)
18 Pakistani
19 Polish
20 Portuguese
21 Spanish
22 Tamil
23 Ukrainian
24 Vietnamese
25 Others (describe):_____

M. What is (are) your first language(s)– that is, the language(s) you first learned at home?

_____

Q. With whom are you living? (Circle one number only.)

1 Both father and mother
2 Mother only
3 Father only
4 Guardian(s)
5 On my own
6 Other (describe):_____

	FATHER	MOTHER
N. What is (are) your parents' first language(s)?	_____	_____
O. What are your parents' occupations? FOR EXAMPLE: carpenter, unemployed, high school teacher, housewife, restaurant owner. (Please write *what* they do, not *where* they work.)	_____	_____
P. What are your parents' highest education levels? (Circle one number for each parent)	1 elementary school 2 secondary school 3 community college 3 university 4 I don't know 5 Other (describe):	1 elementary school 2 secondary school 3 community college 3 university 4 I don't know 5 Other (describe):
	_____	_____

Confidentiality: The information collected on this form will be protected under the Municipal Freedom of Information and Protection of Privacy Act, 1989.

FORM B

Every Secondary Student Survey, 1991-1992
Research Services
Toronto Board of Education

In order to improve programs in Toronto schools, we need to know more about our students. This survey is confidential. No information on individual students will be shared or reported. Information on all 30,000 students is combined to get an overall picture of students and schools.

Please help us get the information to describe our students and improve our programs by answering the questions below. If any particular question causes you concern, skip it.

A. At what level are you taking most of your courses this year? (Circle one number only.)
1 Basic
2 General
3 Advanced
4 Non-streamed (for Rosedale Heights students only)

B. What do you plan to do after leaving high school? (Circle one number only.)
1 I'm not sure yet
2 To attend community college (for example: George Brown, Seneca, Centennial)
3 To go to work full-time
4 To attend university (for example: York, Guelph, Ryerson)
5 Other (describe)_____

C. What do you think your parent(s) would like you to do after leaving high school? (Circle one number only.)
1 This question is not applicable to me
2 I'm not sure
3 To attend community college (for example: George Brown, Seneca, Centennial)
4 To go to work full-time
5 To attend university (for example: York, Guelph, Ryerson)
6 Other (describe)_____

D. How certain are you of your future career plans at this time? (Circle one number only.)
1 I have one specific occupation in mind for myself.
2 I have narrowed my plans to several possibilities.
3 I am undecided and need help.
4 I am undecided but don't need help at this time.

E. On average, how much time do you spend doing homework each week– Monday through Sunday? (Circle one number only.)
1 About _____ hours each week.
2 None.

F. Besides going to school, do you work on weekdays– Monday through Friday? (Do not include the job that you take for your co-op program. Circle one number only.)
1 Yes, about _____ hours between Monday and Friday.
2 No, I do not work on weekdays

G. Do you work on weekends– Saturday and/or Sunday? (Circle one number only.)
1 Yes, about _____ hours Saturday and/or Sunday.
2 No, I do not work on weekends.

(PLEASE TURN OVER)

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H. Where were you born? (Circle one number only.)

1 Canada (If born in Canada, please go to question "J")
2 Other (specify):_____

I. If you were not born in Canada, when did you arrive in Canada? 19___

J. To which of the following groups do you belong? (Circle one number only.)

1 Aboriginal (Native people of North or South America)
2 Asian
3 Black
4 White
5 Mixed
6 Other (describe):_____

K. Do you think of yourself as Canadian? (Circle one number only.)

1 Yes
2 No

L. In addition to (or instead of) Canadian, please indicate which ethnic or cultural group(s) your parents/ancestors belong to. (Circle as many as appropriate.)

1 African
2 Arab
3 British (English, Scottish, Irish, Welsh)
4 Bulgarian
5 Caribbean
6 Chinese
7 Dutch
8 East Indian
9 Filipino
10 French
11 German
12 Greek
13 Iranian/Persian
14 Italian
15 Jewish
16 Korean
17 Native American/Metis (including North/South America)
18 Pakistani
19 Polish
20 Portuguese
21 Spanish
22 Tamil
23 Ukrainian
24 Vietnamese
25 Others (describe):_____

M. What is (are) your first language(s)– that is, the language(s) you first learned at home?

_____

Q. With whom are you living? (Circle one number only.)

1 Both father and mother
2 Mother only
3 Father only
4 Guardian(s)
5 On my own
6 Other (describe):_____

	FATHER	MOTHER
N. What is (are) your parents' first language(s)?	_____	_____
O. What are your parents' occupations? FOR EXAMPLE: carpenter, unemployed, high school teacher, housewife, restaurant owner. (Please write *what* they do, not *where* they work.)	_____	_____

P. What are your parents' highest education levels? (Circle one number for each parent)

FATHER	MOTHER
1 elementary school	1 elementary school
2 secondary school	2 secondary school
3 community college	3 community college
3 university	3 university
4 I don't know	4 I don't know
5 Other (describe):	5 Other (describe):
_____	_____

Confidentiality: The information collected on this form will be protected under the Municipal Freedom of Information and Protection of Privacy Act,1989.

53

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